

**REMOVAL ASSESSMENT REPORT
For
HELENA CHEMICAL SITE**

**602 HOLLAND AVENUE
MISSION, HIDALGO COUNTY, TEXAS**

Prepared for

U.S. Environmental Protection Agency Region 6
1445 Ross Avenue
Dallas, Texas 75202

Date Prepared:

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Reference Numbers

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FPN:	(if applicable)
EPA OSC:	William Rhotenberry
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Date: June 30, 2008

The EPA Task Monitor provided final approval of this report

EXECUTIVE SUMMARY

Dynamac Corporation (Dynamac), the Superfund Technical Assessment and Response Team (START-3) contractor, was tasked by the U.S. Environmental Protection Agency (EPA) Region 6 Prevention and Response Branch (PRB), under Contract Number EP-W-06-077, Technical Direction Document (TDD) Number TO-0001-06-08-01 (Appendix A), to perform removal oversight and to provide technical assistance during the removal action at the Helena Chemical Site located at 602 Holland Avenue, Mission, Hidalgo County, Texas. The removal action was conducted by the EPA Emergency and Rapid Response Services (ERRS) contractors, Environmental Quality Management (EQM), U.S. Environmental Services, Inc., (USESI), and Aerotek. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Number assigned to the site is TXD980625008. The Helena Chemical Site removal activities occurred in two phases. Phase I, soil excavation, commenced on September 22, 2006, and ended on May 1, 2007. Phase II, building demolition and soil excavation, commenced on February 11, 2008, and ended on March 26, 2008. START conducted on-site removal activities during both phases of the removal action. The following summaries describe activities and contaminated debris (concrete, brick, roofing material and wood), soil, and water (storm water and decontamination water) that were transported and disposed of off-site during the two phases:

Phase I

- Approximately **16,515** cubic yards of pesticide-contaminated soils were excavated, of which approximately 12,376 cubic yards of non-hazardous, pesticide-contaminated soils were transported to and disposed of at the AWI EL Centro Landfill located in Robstown, TX. Approximately 4,138 cubic yards of hazardous, pesticide-contaminated soils were loaded and transported to either the Clean Harbors Deer Park facility (3,049 cubic yards); or the Veolia Environmental Services, Port Arthur facility (1,089 cubic yards) for incineration.
- Demolished the small warehouse foundation and several concrete sumps, which generated approximately **483** cubic yards of non-hazardous concrete waste that were transported to AWI EL Centro Landfill in Robstown, Texas, for landfill disposal.
- Generated approximately **39,750** gallons of non-hazardous storm water and decontamination water that were transported to TM Services located in Corpus Christi, TX, for deep well injection.

- Removed approximately **0.05** cubic yards of asbestos-containing material (ACM) from insulation found on the Aboveground Storage Tanks, and transported and disposed of the ACM at the AWI EL Centro Landfill.

Phase II

- Approximately **1,269** cubic yards of pesticide-contaminated soils were excavated, of which 1,000 cubic yards of non-hazardous soils were transported to the Rio Grande Valley Landfill in Donna, Texas, for disposal and 269 cubic yards of hazardous soils were transported to the Clean Harbors Deer Park facility for incineration.
- Demolished the former Mixing Plant Building and generated approximately **1,900** cubic yards of construction and demolition debris (solid waste) that were transported and disposed of at the Rio Grande Valley Landfill located in Donna, Texas.
- Removed approximately **3,000** square feet of transite roofing shingles which are an asbestos-containing material from the Mixing Plant Building south shed roof structure. The ACM was transported and disposed of at the Rio Grande Valley Landfill located in Donna, Texas.

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1 INTRODUCTION

Dynamac Corporation (Dynamac), the Superfund Technical Assessment and Response Team (START-3) contractor, was tasked by the U.S. Environmental Protection Agency (EPA) Region 6 Prevention and Response Branch (PRB), under Contract Number EP-W-06-077, Technical Direction Document (TDD) Number TO-0001-06-08-01, to perform removal oversight and technical assistance during the removal action at the Helena Chemical Site located at 602 Holland Avenue, in Mission, Hidalgo County, Texas. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Number assigned to the site is TXD980625008.

Removal activities were conducted in two phases by the U.S. EPA, Region 6 RPB: Phase I consisted of contaminated soil excavation, and Phase II consisted of building demolition and soil excavation. Phase I was initiated in September 2006 and was completed on May 1, 2007. Phase II was initiated on February 11, 2008, and was completed on March 26, 2008. A Public Meeting was held on May 1, 2008, at Marcell Elementary School in Mission, TX, to inform the general public that the EPA removal activities had been completed.

START conducted on-site removal activities during both phases of the time-critical removal action. START has prepared this document to describe the technical scope of work that was completed as part of the TDD.

This report encompasses the activities conducted by the EPA, the Emergency and Rapid Response Services (ERRS) contractors and START. ERRS contractors were staffed by, Environmental Quality Management (EQM), U.S. Environmental Services, Inc., (USESI), and Aerotek. ERRS will be referred to throughout the report as EQM. This report contains the narrative report, figures, tables, and associated appendices. All figures, tables, and appendices are provided as separate portable document format (PDF) files, where applicable. An entire copy of the report can be found on Compact Discs (CDs). Due to size restraints, the "Pictures of the Day" (Appendices G1 and G2) and photographs taken (Appendices H1 and H2) are provided on a separate CD. The Interactive Soil Analytical Spreadsheets for Phase I and II (Appendices N1 and N2) are found on a separate CD. All scanned Waste manifests for Phase I and II, Appendices

R1 and R2, respectively have been placed on a separate CD, and the video footage collected during Phase II activities, has been placed on a separate DVD.

2 PURPOSE AND SCOPE

The purpose of the removal action at the Helena Chemical Site was to protect human health and the environment through the removal and disposal of pesticide-contaminated soils and building debris generated by demolition activities.

The scope of work defined in the TDD (Appendix A) included documentation and technical assistance. START was specifically tasked (1) to provide planning functions consistent with activities and responsibilities of the resource, situation, and documentation units of the Incident Command System (ICS); (2) to collect facts regarding the discharge or release of Chemicals of Concern (COCs) and to include their source and cause; (3) to monitor and measure the COCs and to analyze potential exposure conditions; (4) to review completeness of disposal documentation such as manifests, waste profile data, and other information; (5) to provide air monitoring and sampling; (7) to prepare a sampling plan that described the number, type, and location of samples and the type of analyses; (8) to collect, analyze, and validate data in accordance with EPA standard methods for sample analysis, (9) to collect confirmation of cleanup soil samples, and (10) to assist in the development of Pollution Reports (Polreps).

The EPA Federal On-scene Coordinators (FOSC) during Phase I removal activities were Valmichael Leos and Greg Fife. FOSC's during Phase II activities were Greg Fife and William Rhotenberry. The START Project Managers (PM) consisted of Troy Naquin for Phase I and Steve Cowan for Phase II.

3 SITE BACKGROUND

Information regarding site location, background information, and site description is presented in the following subsections.

3.1 Site Location and Description

The Helena Chemical Site was an abandoned pesticide formulation facility whose geographical center is located at Latitude 26.2131° North and Longitude -98.3336° West, determined by using a Garmin Global Positioning System (GPS) III unit. A Site Location Map is provided as Figure 1, an Aerial View Map is provided as Figure 2, and a Surrounding Road Map is provided as Figure 3. The former pesticide formulation facility is located on an industrial site approximately 5.2 acres in size. The site is surrounded by residential properties to the east and south and by industrial properties to the west and north. The site is bordered by Holland Avenue to the west, by Business-83 to the north, by Nicholson Avenue to the east, and by 6th Street to the south. During the removal activities access to the property was restricted by a chain-linked fence, with a locked gate, that surrounded the property boundary.

The Helena Chemical site contained one Mixing Plant Building approximately 100 feet by 300 feet in size, a small warehouse and tool storage shed, two aboveground storage tanks (ASTs), one underground storage tank (UST), concrete sumps and vats, and one underground soil repository with an asphalt cap that contained previously excavated contaminated soils (Figure 4).

3.2 Background Information

Information regarding the Helena Chemical Site has been obtained through previous investigations by the Texas Commission on Environmental Quality (TCEQ) and EPA.

The Helena Chemical Company was used for pesticide formulation from 1950 to 1972. The facility is located in a primarily residential neighborhood and incorporated five structures within the property boundary. Soil samples collected in 1980 from the site and surrounding areas indicated elevated concentrations of various pesticides. A lawsuit was filed on behalf of the EPA against the two former owners of the site: Helena Chemical Company and Tex-Ag Company. As a result of the lawsuit, the former site owners entered into a Consent Decree to remediate the contaminated properties.

In 1982, the most highly contaminated soils on the site property were excavated to a depth of six inches below ground surface (bgs) and buried on-site within a soil repository. The repository was capped by a six-inch layer of caliche that was overlain by one-inch of asphalt. In 1983, a federal district Judge in Brownsville, Texas, ruled that all cleanup activities specified in the Consent Decree had been completed. The Consent Decree specified that the current land owner was to be responsible for future upkeep of the soil repository.

In August 2003, TCEQ remediated residential areas adjacent to the site. During the residential remediation activities, TCEQ observed that the asphalt cap had been severely eroded in several areas exposing the soils underneath. TCEQ referred the site to the EPA's Site Assessment section for potential placement on the EPA's National Priorities List (NPL). EPA conducted a Preliminary Assessment/Site Investigation (PA/SI) based on the Hazard Ranking System (HRS). The PA/SI indicated that the site was not eligible for placement onto the NPL; thus, the site was referred for a potential time-critical Removal Action, due to the deteriorating cap over the soil repository.

EPA conducted a Removal Assessment in 2005. The results of the assessment indicated pesticide concentrations exceeding the TCEQ's Texas Risk Reduction Program (TRRP) Protective Concentration Levels (PCLs) for pesticides in the soils, primarily in the east and south sections of the site. Based on the results of the Removal Assessment, EPA began a time-critical removal action in September 2006.

4 SUMMARY OF REMOVAL ACTIVITIES

The following sections provide a summary of Phase I and Phase II removal activities conducted at the Helena Chemical Site. As previously stated in Section 1, Phase I activities commenced on September 25, 2006, and were completed on May 1, 2007. Phase II activities commenced on February 11, 2008, and were completed on March 26, 2008.

4.1 Introduction

Phase I

Removal activities were initiated under the direction of EPA FOSCs Valmichael Leos and Greg Fife. The ERRS contractors conducting the removal activities were EQM and USESI, under the supervision of EQM Response Manager (RM) Matthew Salinger and Site Foreman Virgil Clay. Transportation and Disposal (T&D) was supervised by Robin Alley and Aaron Roski of EQM, and Steve Sturgeon of Aerotek. Removal activities conducted by EQM included the preparation of the site for removal activities (e.g. obtaining site trailers, restroom facilities, and weed control); the demolition of the small warehouse and tool shed; the removal and disposal of the on-site ASTs, UST, and sumps; the excavation of pesticide-contaminated soils at Helena Chemical Site and the 802 W. Hidalgo residence; the collection of waste characterization samples; the loading of demolished concrete and excavated soils onto waste disposal trucks for transport to the various disposal facilities; the procurement of trucking companies to transport the excavated soils, solid wastes, and liquid wastes; and site restoration activities at both the Helena Chemical site and the 802 W. Hidalgo residence.

START conducted written and photographic documentation of the removal activities; conducted on-site and off-site air monitoring; prepared the daily Air Monitoring Logs and Air Monitoring Results and Map; collected air samples for chemical analysis; prepared the Air Sampling Result Tables and Maps; collected confirmation of cleanup soil samples and backfill samples for chemical analysis; posted the air monitoring results at the EPA Community Relations trailer and on the Helena Chemical webpage located at www.epaosc.net; posted the air sampling results and maps on the Helena Chemical webpage at www.epaosc.net; prepared the Incident Action Plans (IAPs) for the established operational periods; maintained the site files (e.g. waste manifests); and provided technical assistance to the EPA FOSC. See Logbooks 1 through 5 for activities conducted by START and the ERRS contractor during Phase I (Appendix B1).

In preparation for the Phase I removal activities, a site-specific HASP was prepared and approved by Dynamac Corporate Health and Safety Director and START Health and

Safety Officer. A Quality Assurance Sampling Plan (QASP) was developed for the site that encompassed removal activities, such as the collection of air and soil samples (Appendix C1). During the removal activities, START personnel documented field activities using site-dedicated field logbooks, the Environmental Sample Data Management System (SCRIBE), and digital photographs, provided as Appendices B1, U, F1, G1, H1, respectively. Planning and organization for on-site activities were conducted using ICS structure and documentation and through development of an Incident Action Plan (IAP) for each operational period (see Appendix E1).

Phase II

Removal activities were initiated under the direction of EPA FOSCs Greg Fife and William Rhotenberry. The ERRS contractors were EQM, under the supervision of RM Gary McCoig and Site Foreman Virgil Clay, and USESI. Transportation and Disposal (T&D) was supervised by Robbin Alley of EQM. This team was responsible for conducting the building demolition and all associated removal activities at the site. Removal activities conducted by ERRS included the demolition of the former Mixing Plant Building; excavation of pesticide-contaminated soils underneath the concrete foundation of the former Mixing Plant Building; collection of waste characterization samples; loading of demolished construction debris and excavated soils for transport to the various disposal facilities; procuring disposal trucks and disposal facilities for transporting and final disposal of wastes; and all site restoration activities.

START personnel conducted written and photographic documentation of the removal activities; conducted on-site and off-site air monitoring; prepared the daily Air Monitoring Logs and Air Monitoring Results and Map; collected air samples for chemical analysis; prepared the Air Sampling Result Tables and Maps; collected confirmation of cleanup soil samples and backfill samples for chemical analysis; posted the air monitoring results at the EPA Community Relations Trailer and on the Helena Chemical webpage located at www.epaosc.net; posted the air sampling results and maps on the Helena Chemical webpage at www.epaosc.net; prepared the Phase II IAP); maintained the site files (e.g. waste manifests); videotaped building demolition activities; and provided technical

assistance to the EPA OSCs. See Logbooks 5 through 7 for activities conducted by START and the ERRS contractor during Phase II (Appendix B2).

In preparation for the Phase II removal activities, a QASP was developed for the site that encompassed removal activities (Appendix C2). During the removal activities, START personnel documented field activities using site-dedicated field logbooks, the Environmental Sample Data Management System (SCRIBE), and digital photographs, provided as Appendices B2, U, F2, G2, H2, respectively.

4.2 Soil Removal

Phase I

The removal activities at the site began on September 22, 2006. The preliminary removal activities included placement of office trailers, site preparation, and general housekeeping. Prior to conducting soil excavation, the ERRS RM had divided the site into six excavation areas (EA) EA 1 through 6. See Figure 5 for the Phase I soil EAs. Each EA consisted of multiple grids, ranging in size from 50 square feet to 100 square feet. Soil excavation activities were initiated on October 16, 2006, in EA 1 and were completed March 16, 2007, in EA 6. Excavation depths ranged from 1 foot below ground surface (bgs) in EA 3 to 19 feet bgs in EA 6. See Appendix D1 for the chronology and volume of excavated soil generated during each week of Phase I activities. After each grid was excavated, START personnel collected five-point composite confirmation of cleanup soil samples for pesticide analysis using EPA SW-846, Method 8081. An EA grid was deemed “clean” when the analytical results indicated pesticide concentrations less than the TCEQ TRRP PCLs for the corresponding pesticides. See Appendix N1 for the soil analytical results and TCEQ TRRP pesticide PCLs.

Soil excavation activities commenced at the 802 W. Hidalgo residence on March 19, 2007. ERRS excavated soils to a depth of two feet bgs in the front yard, east side yard, and backyard. The excavated soils were loaded into a dump truck and transported to the Helena Chemical Site, where they were stockpiled for future transportation to a disposal facility. Excavation activities were completed at 802 W. Hidalgo on March 23, 2008, after

results of the confirmation of cleanup samples collected by START met the TCEQ prescribed cleanup criteria. Chemical analysis of the excavated soils from the 802 W. Hidalgo residence indicated non-hazardous soils. The soils were transported to the AWI EL Centro Landfill for final disposal.

All excavated soils were stockpiled into on-site soil piles and waste characterization samples were collected by ERRS for Toxicity Characteristic Leaching Procedure (TCLP) pesticide analysis to determine disposal options. TCLP pesticide analysis of the waste characterization samples collected by ERRS throughout Phase I indicated the presence of both non-hazardous and hazardous soils. ERRS began to load hazardous soils for transport to Clean Harbors Deer Park (CHDP) disposal facility on November 3, 2006. Hazardous soils were transported to CHDP facility, EPA ID No. TXD05514137, until March 26, 2007. During this timeframe, approximately 2,415 cubic yards of hazardous soils were transported to CHDP for incineration. Due to contract limitations with CHDP, hazardous, pesticide-contaminated soils were shipped to Veolia Environmental Services (VES), located in Port Arthur, TX, from March 28, 2007, to April 14, 2007. During this time frame, approximately 1,089 cubic yards were transported to VES, EPA ID. No. TXD000838896, for incineration. Due to space limitations, hazardous soils were shipped to the CHDP facility from April 26, 2007 to April 29, 2007. An additional 633 cubic yards of hazardous, pesticide-contaminated soils were loaded and transported to the CHDP facility for incineration. A total of 4,138 cubic yards of hazardous, pesticide-contaminated soils were transported to either the CHDP facility (3,048 cubic yards) or the VES facility (1,089 cubic yards) for incineration. See Appendix Q1 and R1 for a list of hazardous waste manifests generated during Phase I and copies of the corresponding manifests.

ERRS began to load non-hazardous soils for transport to the AWI EL Centro Landfill located in Robstown, Texas, on December 21, 2006. All non-hazardous contaminated soils were transported to AWI El Centro Landfill, which has a TCEQ Municipal Solid Waste Permit Number 2267 (Appendix R1). Loading and transporting of non-hazardous soils ended on April 7, 2007. Approximately 12,376 cubic yards of non-hazardous, pesticide-contaminated soils were excavated and transported to AWI EL Centro Landfill

for disposal. See Appendix Q1 and R1 for a list of hazardous waste manifests generated during Phase I and copies of the corresponding manifests.

Phase II

Prior to soil excavation activities, the former Mixing Plant Building and concrete slab were demolished and the resulting construction and demolition debris were staged in the on-site C&D pile. Building demolition is discussed in additional detail in Section 4.4. After the concrete foundation was removed, ERRS and START divided the former Mixing Plant Building area into 10 EA's: EA's 1 through 10. See Figure 6 for the Phase II soil EAs. On February 21, 2008, ERRS began to excavate soils from EA's 1 and 2. All excavated soils were staged in on-site soil piles, which were kept covered with plastic sheeting when not in use. Excavation depths ranged from 1 foot bgs in EA's 1 through 7 to 3 feet bgs in EA's 8 through 10. After each EA was excavated, START personnel collected nine-point composite confirmation of cleanup soil samples for pesticide analysis using EPA SW-846, Method 8081. An EA was deemed "clean" when the analytical results indicated pesticide concentrations less than the TCEQ TRRP PCLs for pesticides. See Appendix N2 for the soil analytical results and TCEQ TRRP pesticide PCLs.

All soil excavation activities were completed on March 11, 2008. Chemical analysis of the waste characterization samples collected by ERRS from the six (6) on-site soil piles indicated hazardous concentrations of pesticide-contaminated soils in Soil Pile No. 3. Soil Piles 1, 2, 4, 5, and 6 contained non-hazardous soils contaminated with pesticides. ERRS initiated non-hazardous soil loading activities on March 18, 2008, and completed the loading of non-hazardous soils on March 20, 2008. Approximately 1,000 cubic yards of non-hazardous soils were loaded and transported to the Rio Grande Valley Landfill (RGVL) for disposal (Appendix R2). On March 21, 2008, ERRS began the loading of hazardous soils for transport to Clean Harbors Deer Park waste disposal facility for incineration. ERRS concluded the loading of hazardous soils on March 25, 2008. Approximately 269 cubic yards of hazardous soils were excavated, transported, and disposed of at Clean Harbors during Phase II activities (Appendices Q2 and R2).

4.3 Solid Waste Removal

Phase I

During the week of October 5, 2006, EQM initiated and completed the removal of the two on-site ASTs. The ASTs were examined for contents and steam-cleaned; then the asbestos insulation was removed and the ASTs were transported to an off-site disposal facility. Approximately 0.05 cubic yards of ACM found in the AST insulation was removed by ERRS and transported to the AWI EL Centro Landfill for final disposal.

On November 21, 2006, ERRS discovered a 1,000 gallon UST during soil excavation activities in EA 1. The UST was located approximately 3 to 4 feet below ground surface. Due to a strong odor of hydrocarbons, ERRS conducted a “head space” test with a MultiRAE gas monitor. The “head space” test indicated elevated levels of volatile organic compounds (VOCs), as high as 25 parts per million (ppm). After the UST was removed from the soil and examined, it was observed that the empty UST contained holes and that the underlying soil was saturated. The soil was removed and staged in one of the on-site soil piles. The UST was steam-cleaned and disposed of at an off-site facility. See Appendix S1 for description of activities associated with the UST.

On December 1, 2006, ERRS discovered a concrete sump in EA 2 while conducting soil excavation activities. The sump was approximately 6 feet in width by 3 feet in length by 4 feet in depth and was located approximately 3 to 4 feet bgs. Approximately 1 foot of dark colored liquid and sludge was observed in the sump. START collected liquid and sludge samples of the material in the sump. The sludge sample was analyzed for TCL Semi volatile Organic Compounds (SVOCs), Pesticides and Polychlorinated Biphenyls (PCBs), and TAL Metals. The liquid sample was analyzed for TCL VOCs, SVOCs, Pesticides, PCBs and TAL Metals. See Section 4.7 for a discussion of the analytical results. ERRS removed the liquid from the sump and placed it in the on-site Fractionation Tank. The sludge and concrete were removed and placed in their respective on-site waste piles for future transport to a disposal facility.

On December 13, 2006, an underground pipe containing a thick, black, oil-like material was discovered in EA 2. The pipe was located approximately 3 to 4 feet bgs and was traced to the southern edge of the site where it continued underneath W. 6th. Street towards the MCISD Maintenance Facility. START collected a sample of thick, black, oil-like material and submitted it to the analytical laboratory for TCL VOC, SVOC, and pesticides, TAL metals, and TPH-DRO analyses. Chemical analyses of the collected sludge sample indicated the presence of TCL VOCs, SVOCs, and pesticides and TAL metals in the sludge. See Section 4.7 for a discussion of the analytical results. The contaminated soil was removed and the pipe was capped at the southern boundary of the site. The contaminated soil from the excavation of the exposed pipe was placed in an on-site soil pile for transport to a disposal facility. START conducted written, photographic, and videographic documentation of the solid waste removal activities (Appendices B1, F1, G1, and H1).

Phase II

During the Mixing Plant Building demolition activities, approximately 1,800 cubic yards of construction and demolition debris were removed and staged in the on-site C&D pile. On February 26, 2008, ERRS initiated the loading of the C&D material for off-site transport to the RGV. The final load of C&D material was transported to the RGV on March 6, 2008. See Appendix D2 for the chronology of events related to the generation, transportation, and disposal of the C&D waste material.

On February 22, 2008, Turnstone EH&S representatives removed and disposed of approximately 3,000 square feet of ACM from the south shed roof structure.

START conducted written, photographic, and videographic documentation of all the solid waste removal activities (Appendices B2, F2, G2, H2, and T).

4.4 Building Demolition

Phase I

Between September 30, 2006, and October 4, 2006, ERRS initiated the demolition of the small warehouse and tool shed located southeast of the former Mixing Plant Building. By

October 26, 2006, the demolition of the small warehouse had been completed. All metal was segregated from the other debris and transported to a scrap metal yard. The concrete from the foundation was reduced to smaller pieces and staged into the on-site concrete rubble pile. Other buried concrete structures (e.g., sump in EA 2) were discovered during the excavation process, reduced to smaller pieces, and staged in the on-site concrete waste pile. Loading and transporting of the concrete debris commenced on January 17, 2007, and ended on February 20, 2007. Approximately 483 cubic yards of pesticide-contaminated concrete from the small warehouse and concrete sump were loaded and transported to AWI EL Centro Landfill for disposal. See Appendix Q1 and R1 for a list of hazardous waste manifests generated during Phase I and copies of the manifests. START conducted written, photographic, and videographic documentation of the small warehouse and tool shed demolition activities (Appendices B1, F1, G1, and H1).

Phase II

Prior to initiating the building demolition activities, ERRS collected concrete and wood samples from the inside of the former Mixing Plant Building for waste characterization and assisted the site owner with the removal of materials from the inside of the building. Building demolition activities commenced on February 12, 2008, with the removal of the northeast section of the roof. By March 16, 2008, it was estimated that 50% of the roof structure had been removed from the Mixing Plant Building. All construction and demolition debris were staged in the on-site C&D pile. On February 21, 2008, ERRS initiated the removal of the concrete foundation location in EAs 1 and 2. By February 22, 2008, the entire roof structure and the east, west, and north wall structures had been removed. On February 22, 2008, representatives from Turnstone EH&S conducted an asbestos removal action on the south shed roof located in the southern section of the site and attached to the former Mixing Plant Building. Approximately 3,000 square feet of ACM, in the form of transite, were removed from the south shed roof and disposed of at a permitted facility by Turnstone EH&S. On February 23, 2008, the south shed and the remaining wall structures of the former Mixing Plant Building had been demolished and the resulting C&D material transported to the on-site C&D waste pile. By February 29, 2008, the concrete foundation covering EA's 9 and 10 had been removed. See Appendix

D2 for chronology of building demolition activities. As previously stated in Section 4.3, approximately 1,900 cubic yards of C&D material had been generated and transported to the RGVL for final disposal (Appendix R2). START conducted written, photographic, and videographic documentation of all the building demolition activities (Appendices B2, F2, G2, H2, and T).

4.5 Site Restoration

Phase I

Prior to receiving backfill soils used for restoration, the soils were sampled by START and analyzed for organochlorine pesticides and TAL metals. Chemical analysis of the backfill samples did not indicate concentrations of pesticides or metals that exceeded the TCEQ TRRP PCLs for those constituents. During the week of December 16, 2006, EQM commenced site restoration activities when backfill soil arrived. All backfill soil was stored in on-site backfill piles until ready for use. The backfill soil was placed in the excavated grids and graded to match the original contour. As of February 9, 2007, EA's 1, 2, and 3 had been completely backfilled with clean soil and graded to the original contour. As of February 23, 2007, EA 4 had been completely backfilled with clean soil and graded to the original contour. As of March 16, 2007, EA's 5 and 6 had been completely backfilled and graded. Leveling and grading activities continued until April 29, 2007, when the last contaminated soils were loaded and transported offsite for disposal.

At the residence 802 W. Hidalgo, site restoration activities included the placement of a geotextile liner between the excavated ground surface and the backfill soils, placement of both backfill and top soils, the placement of grass sod, the construction of a new side yard porch and a new chain-linked fence. All restoration activities at 802 W. Hidalgo were completed on March 26, 2008.

Phase II

Prior to receiving backfill soils for site restoration activities, START collected backfill soil samples from One Valley Materials located in La Joya, Texas. The backfill soil samples

were analyzed for organochlorine pesticides and total metals. Chemical analysis of the backfill samples confirmed that they were within the TCEQ cleanup criteria and suitable for restoration activities. On March 3, 2008, ERRS began to receive backfill soils for site restoration activities and on March 4, 2008, site restoration activities were initiated in EA's 1 and 2. All backfill soils were graded until the original contours were achieved. Additional site restoration activities included the placement of erosion mats along the east, south, and southwest perimeters of the site and preparing the perimeter fence for removal. Site restoration activities concluded on March 25, 2008 (Appendices B2 and S2). The ERRS contractor remobilized to the site in May 2008 to remove the perimeter fencing (Appendix S2).

4.6 Air Sampling and Monitoring

Phase I/II Air Monitoring

During Phase I and II operations, START conducted on-site and off-site particulate air monitoring to protect site personnel and the surrounding residents from exposure to pesticide-contaminated particulates. Real-time particulate air monitoring was conducted according to guidelines established in EPA OSWER Directive 9360.4-09, EPA 540/R-95/140, PB96-963206, and December 1995.

Air monitoring was conducted on each day of site activities unless inclement weather (e.g., rain and fog) or site activities (e.g., weed and grass control, no soil excavation or loading of disposal trucks) precluded the use of air monitoring. Table 1 lists the Phase I Stationary Air Monitoring/Sampling Locations as designated by EPA and START.

TABLE 1: Phase I Stationary Air Monitoring/Sampling Locations

Stationary Air Monitoring/Sampling Locations
On-site: Numerous locations located throughout Exclusion Zone
Community Relations Trailer/Support Zone (CRT/SZ)
MCISD Transportation Yard
Vacant Field west of Holland Avenue
MCISD Maintenance Facility, Northwest
MCISD Maintenance Facility, Central
MCISD Maintenance Facility, Northeast
Intersection of W. Sixth Street and Nicholson Avenue
Pearson Elementary School
Mission City Hall (Background)
Mission Fire Department No. 3 (Background)
Mission Fire Department No. 4 (Background)

The majority of the off-site air monitoring/sampling occurred at the MCISD Transportation Yard, the MCISD Maintenance Facility, Central, Pearson Elementary School, and the intersection of W. 6th Street and Nicholson Avenue. See Appendix I1 for the daily location of the air monitoring locations.

Table 2 lists the Phase II Stationary Air Monitoring/Sampling Locations as designated by EPA and START

TABLE 2

Phase II Stationary Air Monitoring/Sampling Locations

Stationary Air Monitoring/Sampling Locations
On-site: North, West, Southwest, and Southeast locations in the Exclusion Zone
Community Relations Trailer/Support Zone (CRT/SZ)
MCISD Transportation Yard
MCISD Maintenance Facility, Central
Pearson Elementary School

The number of air monitors deployed each day depended upon site activities and the prevailing wind direction. A weather station was maintained at the EPA/ERRS/START command post and provided instantaneous weather conditions, such as prevailing wind direction and speed, temperature, and humidity. START utilized MIE DR-4000 dataRAMs, with internal data logging capabilities (dataRAMs) (active real-time aerosol monitors) in order to collect daily particulate matter (PM10) measurements. The dataRAMs were pre-calibrated by the manufacturer prior to shipment to the Helena Chemical site. The dataRAMs were programmed to collect PM10 measurements (concentrations and time weighted average [TWA]) every minute. START conducted operational checks on the deployed dataRAMs two to three times during the day's operational period and recorded the TWA readings. The daily operational period began at 0700 hours and usually lasted until 1730 or 1800 hours. The average run length of the deployed dataRAMs was between 8 and 10 hours, depending upon weather conditions and site activities. At the end of the day's operational period, established by the ERRS RM or

Foreman, START retrieved the air monitors, recorded the TWA concentrations for each deployed monitor, re-configured the PM10 concentration ($1.0 \mu\text{g}/\text{m}^3$) and flow rate ($2.5 \text{ l}/\text{m}$), if needed, and prepared the daily Air Monitoring Logs. The Air Monitoring Logs include an Air Monitoring Location Map and weather forecast (Appendices I1 and I2). The recorded PM10 measurements for each dataRAM used can be found in Appendices J1 and J2. The real time dust monitoring measurements were compared against the EPA's health-based National Ambient Air Quality Standards (NAAQS) for exceedances of any PM10 measurements. The primary standard for particulate matter equal to or less than 10 microns size is 50 micrograms per cubic meter (ug/m^3) of air, measured as an annual mean, and $150 \text{ ug}/\text{m}^3$ of air measured as a daily concentration (24 hour period). It should be noted that most PM10 measurements were based on 8 to 10 hours, not 24-hours as the NAAQS's specify.

In order for the general public to have access to the daily air monitoring results, START prepared the daily Air Monitoring Results Table and Map in both Spanish and English and posted them at EPA Community Relations Trailer and at the Helena Chemical website located at www.epaosc.net (Appendices K1 and K2).

Phase I/II Air Sampling

During Phase I operations, START collected on-site and off-site air samples using stationary air samplers and on-site samples using portable air samplers (Phase I, only) in order to determine if on-site workers and surrounding residential areas were being exposed to airborne pesticide contamination. Selection of air sampling locations was primarily based upon the day's site activities (e.g., soil excavation or loading of disposal trucks) and weather conditions (e.g. prevailing wind direction and speed) (Appendices C1 and C2). In order to determine if the potential pesticide contamination was either particulate or gaseous in nature at a sampling station, START collected the air samples with both Mixed Cellulose Ester (MCE) filter cassettes and/or Polyurethane Foam (PUF) sorbent tubes, respectively. The collection of one set of samples consisted of an MCE filter cassette sample and a PUF sorbent tube sample at one station. The air sampling strategy was to

collect, at a minimum, one set of upgradient air samples and one set of downgradient air samples, with selected locations based on the prevailing wind direction that day.

To collect the MCE filter cassette and PUF sorbent tube samples, the MCE filter cassettes and PUF sorbent tubes were attached to SKC personal air sampling pumps with Teflon tubing. Prior to deployment, the flow rate of the SKC pumps was pre-calibrated and recorded. The optimal flow rate desired was 2.5 l/m. See Tables 1 and 2 for the locations of the stationary air monitoring/sampling locations utilized in Phase I and Phase II, respectively. For the on-site portable, moveable air samplers used in Phase I, the sampling equipment was attached to either the ERRS excavation equipment or ERRS front end loaders. See Appendices B1, B2, I1 and I2 for air sampling locations collected during both Phase I and Phase II.

At the end of the day's operational period, START retrieved the air samplers, recorded the run (collection) time and end time, and post-calibrated the SKC pumps to obtain the final flow rate needed for calculation of the average flow rate. The run time and average flow rate was used to calculate the volume of air that was drawn through the filter MCE cassettes and PUF sorbent tubes. START prepared the daily MIE and SKC Air Sampling Logs, which were attached to the corresponding daily Air Monitoring Log. The Air Monitoring Logs included an Air Sampling Location Map and weather forecast (Appendices I1 and I2). After the air samples were retrieved, the MCE filter cassettes and PUF sorbent tubes were packaged and shipped to the laboratory for pesticide analysis, which is discussed in more detail in Section 4.7. Phase I air sampling collection began on September 29, 2006, with the collection of background or upgradient air samples, and ended on April 27, 2007, with collection of on-site air samples. Phase II air sample collection commenced on February 13, 2008, and was completed on March 25, 2008 (Appendices B1, B2, I1, I2, L1 and L2).

4.7 Sampling and Analyses

Phase I

During the course of the Phase I activities START personnel collected air, sludge/sediment, liquid, and confirmation of cleanup soil samples for chemical analyses.

Air Samples

Air sampling began on September 29, 2006, with the collection of background air samples and ended on April 27, 2007, with the collection of on-site stationary air samples. START collected a total of 847 stationary and non-stationary air samples (Appendix S1).

Stationary air samples were collected from fixed, designated air monitoring/sampling stations in order to determine if potential airborne contamination was migrating to off-site locations. Approximately 635 stationary air samples at the Helena Chemical site and 31 stationary air samples at the 802 W. Hidalgo site (particulate and gaseous samples) were collected during Phase I (Appendices S1 and U). See Section 4.6 for a list of the stationary air sampling locations. The MCE filter cassette samples were analyzed for organochlorine pesticides utilizing method TO-10A and the PUF sorbent tube samples were analyzed for organochlorine pesticides utilizing EPA SW-846, Method 8081A (Appendices C1 and U). The analytical results were compared to the TCEQ Short Term Effect Screening Levels (ST-ESLs) for exceedances. One exceedance, heptachlor, of the TCEQ ST-ESLs was documented during Phase I activities (Appendix L1). No other exceedances of the TCEQ-ST-ESLs were documented with the stationary air samples. After obtaining the final analytical air sampling results, START prepared Air Sampling Result Tables and Maps, which were posted on the Helena Chemical website at www.epaosc.net (Appendix M1). Analytical results and corresponding daily air sampling maps for the stationary air samples can be found in Appendix L1.

Non-stationary air samples were collected from the ERRS excavators and front-end loaders during the actual excavation and loading of contaminated soil. The non-stationary air samples were collected to determine if the ERRS personnel were being exposed to airborne pesticide concentrations and to assist in determining if the level of personal protective

clothing being worn was appropriate. Approximately 181 non-stationary air samples were collected during Phase I activities (Appendix U).

Soil/Sludge/Sediment Samples

During the course of the Phase I soil excavation activities, START collected approximately 182 confirmation of cleanup soil samples from the various excavated soil grids located in Excavation Areas 1 through 6. In addition, five (5) confirmation cleanup samples were collected at the residence 802 W. Hidalgo (Appendices S1 and U). All collected confirmation of cleanup soil samples were analyzed for organochlorine pesticides using EPA SW-846, Method 8081 (Appendix C1). In order to determine if an excavated grid was “clean” and the excavation of that grid was completed, the analytical results were compared to the TCEQ TRRP PCLs for soil. If the soil PCLs were exceeded, additional excavation and sampling was conducted until the detected soil concentrations were less than the TRRP PCLs for organochlorine pesticides. Confirmation of cleanup soil sampling results can be found in the Interactive Soils Spreadsheet (Appendix N1).

Six (6) backfill/topsoil samples were collected from the One Valley Materials (3 samples) and Texas Dump (3 samples) also located in La Joya, TX. To determine if the backfill/topsoil materials could be used during site restoration activities (Appendices S1 and U). The soils were analyzed for organochlorine pesticides using EPA SW-846, Method 8081 and TAL metals utilizing SW-846, Method 6010C. The analytical results were compared to the TCEQ TRRP PCLs (soils) for pesticides and total metals. There were no exceedances of either the TRRP PCLs for pesticides or TAL metals; thus, the backfill/topsoil materials were deemed useable for site restoration activities.

During the soil excavation activities, three sediment sludge samples were collected beneath an UST and in the vicinity of uncovered sumps or pipelines. Because of the hydrocarbon odor and black-like material, the samples were analyzed for TCL VOCs, SVOCs, and pesticides, TPH DRO, and TAL metals. The sediment sludge analytical results were compared to the TCEQ TRRP PCLs for those constituents. Chemical analysis of the sediment sludge sample collected on October 25, 2006 and beneath the identified UST indicated the presence of TCL Pesticides and SVOCs, and TAL Metals. Comparison of

the analytical results to the TCEQ TRRP PCLs indicated one pesticide exceedance, beta-BHC. Chemical analysis of the sediment sludge sample collected on December 1, 2006 from the identified concrete sump indicated the presence of TCL pesticides, SVOCs, and TAL metals. Comparison of the analytical results to the TCEQ TRRP PCLs indicated three pesticide exceedances (alpha-BHC, heptachlor, and heptachlor epoxide). Chemical analysis of the sediment sludge sample, collected on December 14, 2006 from the identified underground pipe in EA No. 2, indicated the presence of TCL Pesticides, VOCs, and SVOCs, TAL Metals, and TPH-DRO. Comparison of the analytical results to the TCEQ TRRP PCLs indicated one pesticide exceedance of alpha-BHC. See Appendix V, Tables 1 -6 for the analytical results. In all cases, the contaminated sediment sludge was excavated and placed in an on-site soil pile for waste characterization, transport, and disposal.

Liquid Samples

Two liquid samples were collected during Phase I activities: one sample was collected from the uncovered UST (October 25, 2006) and one sample collected from the concrete sump located in EA 2 (December 1, 2006) (Appendix U). The liquid samples were analyzed for TCL VOCs, SVOCS, and Pesticides and TAL metals. The analytical results were compared to the EPA's Maximum Contaminant Levels (MCLs) which consist of the primary and secondary drinking water standards. Chemical analysis of the liquid waste sample collected on October 25, 2006 indicated the presence of TCL pesticides, VOCs, SVOCs and TAL metals in concentrations that exceeded the laboratory reporting limits. Comparison to the EPA MCLs indicated exceedances of two VOCs (benzene and chlorobenzene) and two metals (aluminum and arsenic) (Appendix V, Tables 6 – 9). Chemical analysis of the liquid sample collected on December 1, 2006 indicated the presence of TCL Pesticides, VOCs, SVOCs, and TAL Metals in concentrations exceeding the laboratory reporting limits. Comparison to the EPA MCLs indicated exceedances of two pesticides (gamma-BHC [lindane] and heptachlor), two VOCs (benzene and chlorobenzene), one SVOC (pentachlorophenol) and four metals (aluminum, arsenic, lead, and manganese) (Appendix V, Tables 6 – 9). It should be noted that the EPA MCLs are drinking water standards and the liquid samples collected by START were obtained from

an on-site concrete sump and UST. The liquids were vacuumed out of the sumps and UST and placed in the on-site Fractionation Tank for disposal.

Laboratories

Two laboratories were utilized by START during Phase I activities. From September 29, 2006, to November 10, 2006, collected samples were shipped, via Federal Express, to Accura Analytical Laboratories located in Norcross, Georgia. From November 11, 2006, to April 27, 2007, all collected samples were shipped, via Federal Express, to Chemtech Laboratories located in Mountainside, New Jersey. See Appendices P1 for sampling chain-of-custody (COC) forms. After receiving the analytical data packages for the various sample delivery groups (SDGs), START conducted data validation activities on the received SDGs data. See Appendix O1 for the Phase I data validation reports.

Phase II

During the course of the Phase II activities, START personnel collected air and confirmation of cleanup soil samples for chemical analyses.

Air Sampling

Air sampling began on February 13, 2008, to determine if the building demolition activities were causing potential airborne migration of hazardous substances to the surrounding community. Air sampling ended on March 25, 2008. Approximately 69 stationary air samples were collected during Phase II (Appendices S2 and U). See Section 4.6 for a list of the stationary air sampling locations. The MCE filter cassette air samples were analyzed for organochlorine pesticides utilizing method TO-10A and the PUF sorbent tube air samples were analyzed for organochlorine pesticides utilizing EPA SW-846, Method 8081A (Appendices C1 and U). The analytical results were compared to the TCEQ Short Term Effect Screening Levels (ST-ESLs) for exceedances. There were no exceedances of the TCEQ-ST-ESLs documented during Phase II. After obtaining the final analytical air sampling results, START prepared Air Sampling Result Tables and Maps, which were posted on the Helena Chemical website at www.epaosc.net (Appendix

M2). Analytical results and corresponding daily air sampling maps for the stationary air samples can be found in Appendix L2.

Soil Sampling

During the course of the Phase II soil excavation activities, Dynamac START collected 17 confirmation of cleanup composite soil samples (including duplicate samples) from the various excavated soil grids located in Excavation Areas 1 through 10 (Figure 5) (Appendices S1 and U). All collected confirmation of cleanup soil samples were analyzed for organochlorine pesticides using EPA SW-846, Method 8081 (Appendix C2). As in Phase I, the resulting soil analytical results were compared to the TCEQ TRRP PCLs for soils to determine if an EA was “clean”. If the soil PCLs were exceeded, additional excavation and sampling was conducted until the detected soil concentrations were less than the TRRP PCLs for organochlorine pesticides. Re-excavation and sampling occurred in EA’s 8, 9 and 10. Confirmation of cleanup soil sampling results can be found in Appendix N2.

During Phase I, two (2) backfill soil samples were collected from soils at the One Valley Materials facility located in La Joya, TX. (Appendices S2 and U). All backfill soil samples were analyzed for organochlorine pesticides using EPA SW-846, Method 8081 and TAL metals utilizing SW-846, Method 6010C. The analytical results were compared to the TCEQ TRRP PCLs (soils) for pesticides and total metals. There were no exceedances of the pesticide and soil TRRP PCLs: thus, the backfill material was deemed useable for site restoration activities.

Laboratory

One laboratory, Chemtech Laboratories located in Mountainside, New Jersey, was utilized for chemical analyses by START during Phase II activities. Sample collection began on February 13, 2008 and ended on March 25, 2008. See Appendix P2 for sampling chain-of-custody (COC) forms). After receiving the analytical data packages for the various sample delivery groups (SDGs), START conducted data validation activities on the received SDGs data. See Appendix O2 for the corresponding Phase II data validation reports.

5 SUMMARY

Removal activities for Phase I were initiated in September 2006 by EPA, ERRS, and START. ERRS Phase I activities primarily consisted of soil excavation, soil and concrete loading of disposal trucks, and the transporting of the various wastestreams to the permitted non-hazardous and hazardous disposal facilities. START Phase I activities consisted of air monitoring, air sampling, the collection of confirmation of cleanup composite soil samples, data validation of the received air and soil analytical results, and the photographic and written documentation of all removal activities. In summary, the following removal actions took place at the Helena Chemical Site:

Phase I

Transported and disposed off-site

- Excavated approximately **16,515** cubic yards of pesticide-contaminated soils, of which approximately 12,376 cubic yards of non-hazardous, pesticide-contaminated soils were transported to and disposed of at the AWI EL Centro Landfill located in Robstown, TX. Approximately 4,138 cubic yards of hazardous, pesticide-contaminated soils were loaded and transported to either the Clean Harbors Deer Park facility (3,049 cubic yards); or the Veolia Environmental Services (VES) Port Arthur facility (1,089 cubic yards) for incineration.
- Demolished the small warehouse foundation and several concrete sumps, which generated approximately **483** cubic yards of non-hazardous concrete wastes that were transported to AWI EL Centro Landfill in Robstown, Texas, for landfill disposal.
- Generated approximately **39,750** gallons of non-hazardous storm water and decontamination water that were transported to TM Services located in Corpus Christi, TX, for deep well injection.
- Removed approximately **0.05** cubic yards of asbestos-containing material from insulation found on the Aboveground Storage Tanks (ASTs) and transported and disposed of that waste at the AWI El Centro Landfill.
- Collection and analysis of 847 air samples (MCE filter cassettes and PUF sorbent tubes) for organochlorine pesticides;
- The collection and analysis of 182 confirmation of cleanup composite soil samples for organochlorine pesticides; and
- The collection and analysis of six (6) backfill/topsoil samples for TAL metals and organochlorine pesticides.

The Helena Chemical site, Phase I removal activities were concluded on May 1, 2007 with EPA/ERRS/START demobilizing from the site until arrangements could be made to begin Phase II activities.

Phase II activities, building demolition and soil excavation, were initiated on February 11, 2008. Primary activities conducted by ERRS during Phase II included the demolition of the former Mixing Plant Building, excavation of the underlying soils, loading disposal trucks with C&D debris and excavated soils for transport to the disposal facilities; primary activities conducted by START included real time air monitoring and air sampling; confirmation of cleanup composite soil sampling; data validation of the generated air and soil analytical data; and videographic, photographic, and written documentation of all on-site removal activities. See the summary below for the amount of waste material transported and disposed off site, the number of air samples collected, and the number of soil samples collected during Phase II operations.

Phase II

Transported and disposed off-site

- Excavated approximately **1,269** cubic yards of pesticide-contaminated soils, of which 1,000 cubic yards of non-hazardous soils were transported to the Rio Grande Valley Landfill in Donna, Texas, for disposal and 269 cubic yards of hazardous soils were transported to the Clean Harbors Deer Park facility for incineration.
- Demolished the former Mixing Plant Building and generated approximately **1,800** cubic yards of construction and demolition debris (solid waste) that were transported to the Rio Grande Valley Landfill located in Donna, Texas, for landfill disposal.
- Removed approximately **3,000** square feet of ACM from the Mixing Building south shed roof structure and transported the ACM to the Rio Grande Valley Landfill located in Donna, Texas.
- Collected and analyzed a total 69 stationary air samples (MCE filter cassettes and PUF sorbent tubes) for organochlorine pesticides; and
- Collected and analyzed a total of seventeen (17) confirmation of cleanup composite soil samples for organochlorine pesticides and two (2) backfill soil samples for TAL metals and organochlorine pesticides.

EPA, ERRS, and START demobilized from the site on March 26, 2008. A public meeting was conducted on May 1, 2008, at the Marcell Elementary School in Mission, Texas, to inform the public that the EPA removal activities were completed.

FIGURES

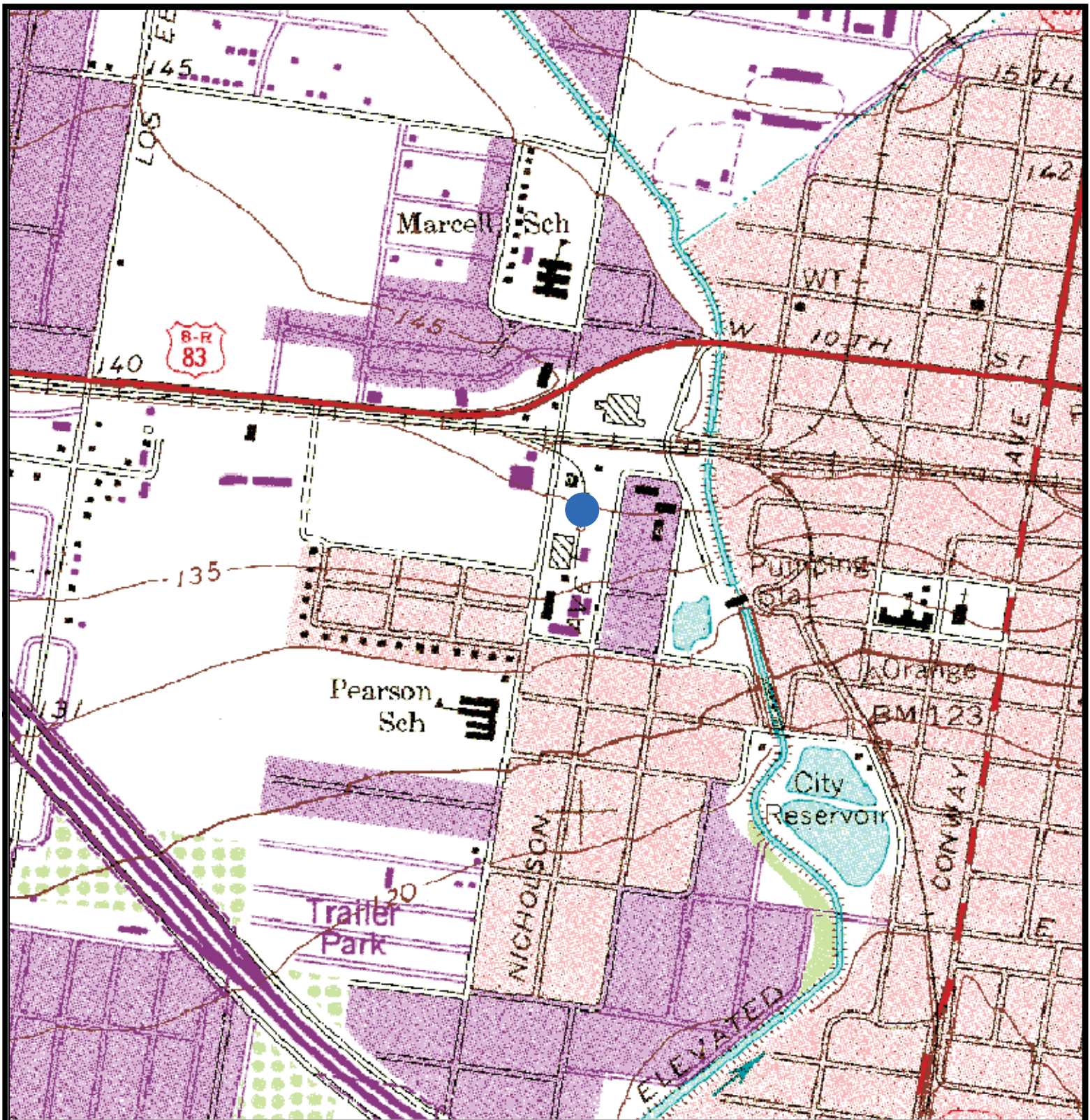


Image: USGS Quad 26098-B3, USGS 24K Collarless DRG, downloaded from TNRIS June 6, 2008

Legend



**Helena Chemical
Site Location**

0 375 750 1,500 2,250 3,000 Feet



**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**



HELENA CHEMICAL LOCATION MAP

MISSION, HIDALGO COUNTY, TEXAS

**DYNAMAC
CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 1



Image: National Agricultural Imagery Program,
November 11, 2004 downloaded from TNIRIS

0 100 200 400 600 800 Feet



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY



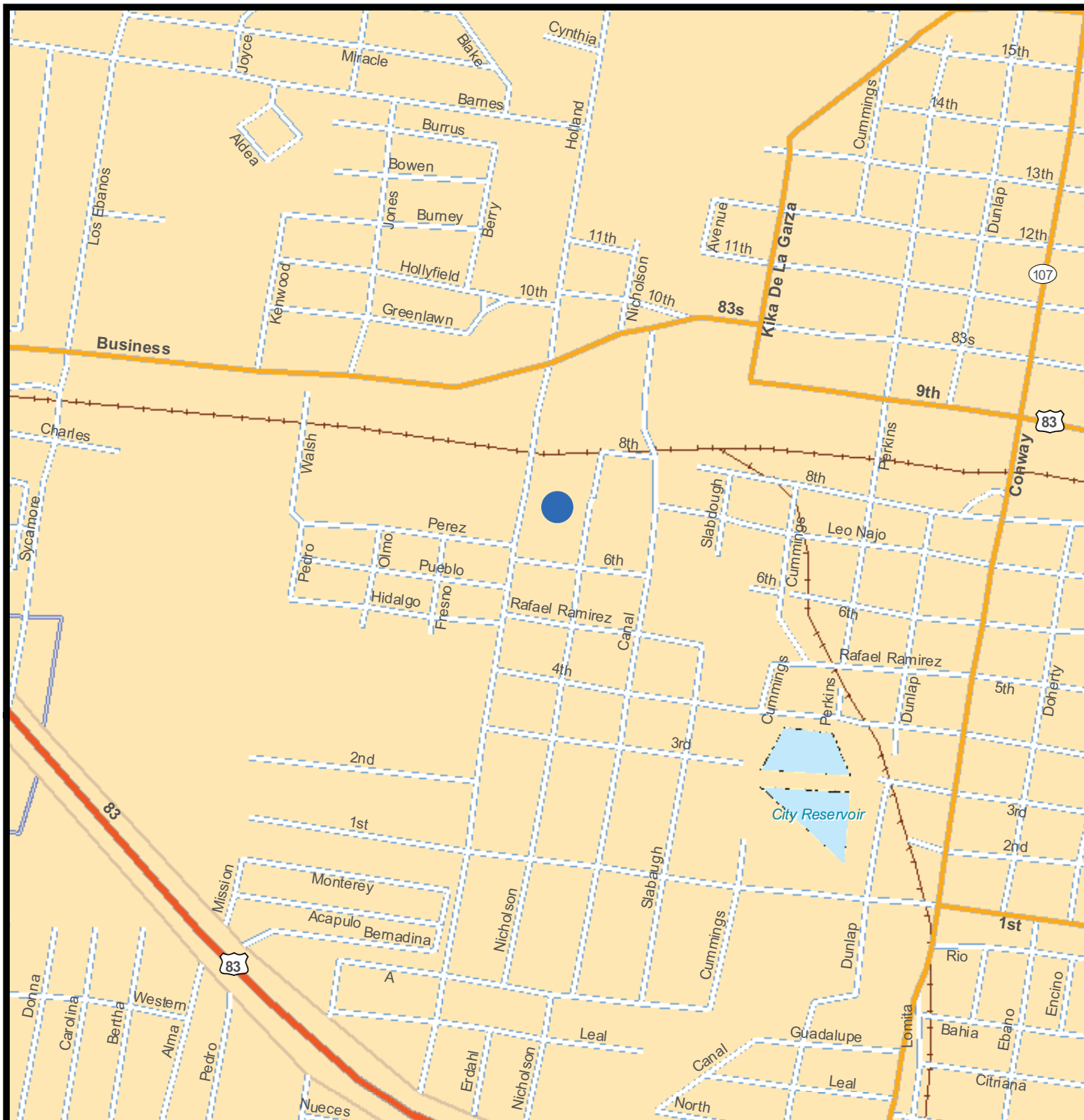
**AERIAL VIEW
OF THE HELENA
CHEMICAL SITE**

MISSION, HIDALGO COUNTY, TEXAS

**DYNAMAC
CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 2



Data: ESRI StreetMap

Legend



**Helena Chemical
Site Location**

0 365 730 1,460 2,190 2,920 Feet



**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**



**ROADS IN THE VICINITY
OF HELENA CHEMICAL**

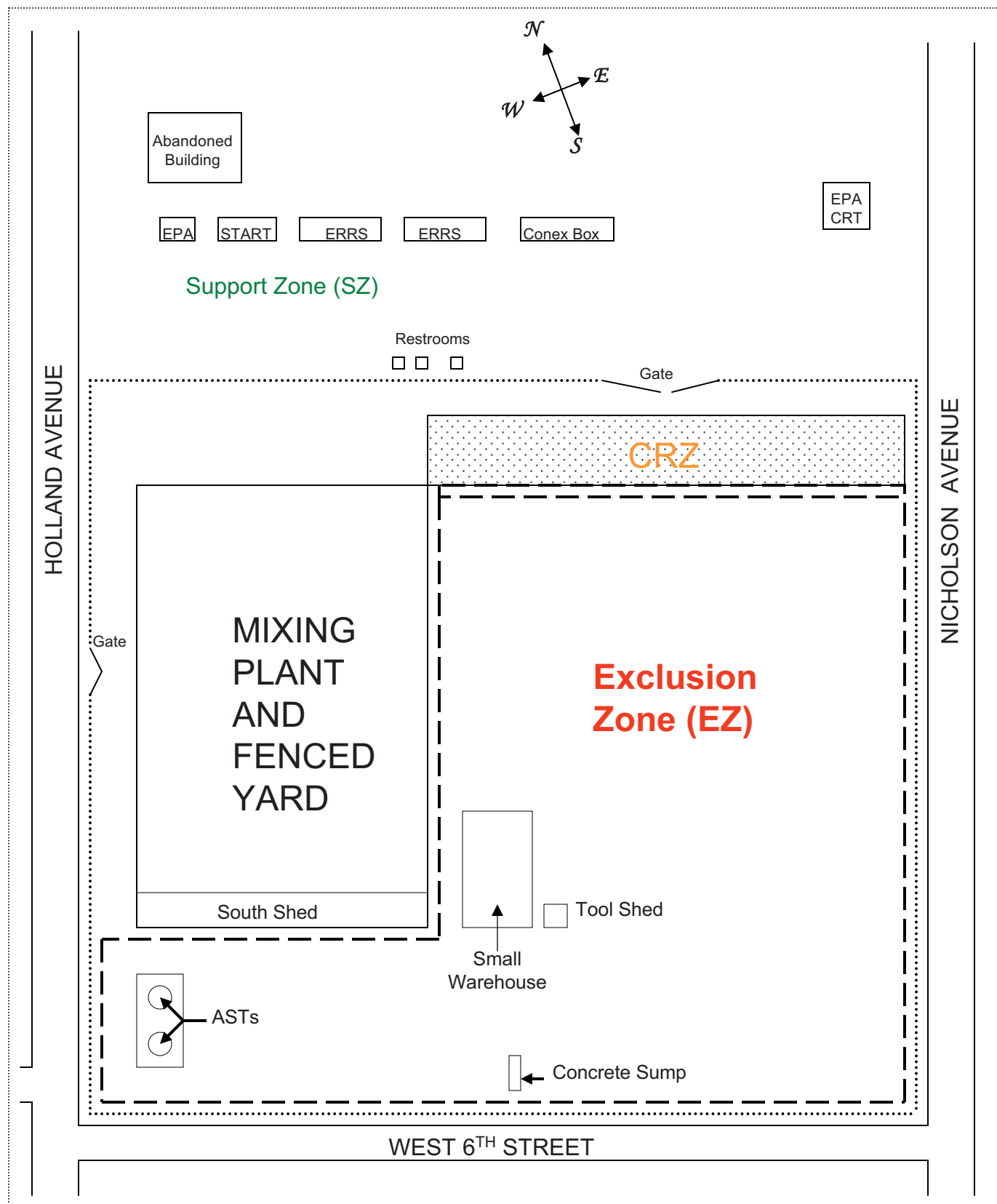
MISSION, HIDALGO COUNTY, TEXAS

**DYNAMAC
CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 3

**FIGURE 4
HELENA CHEMICAL SITE SKETCH**



Legend:

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Fence

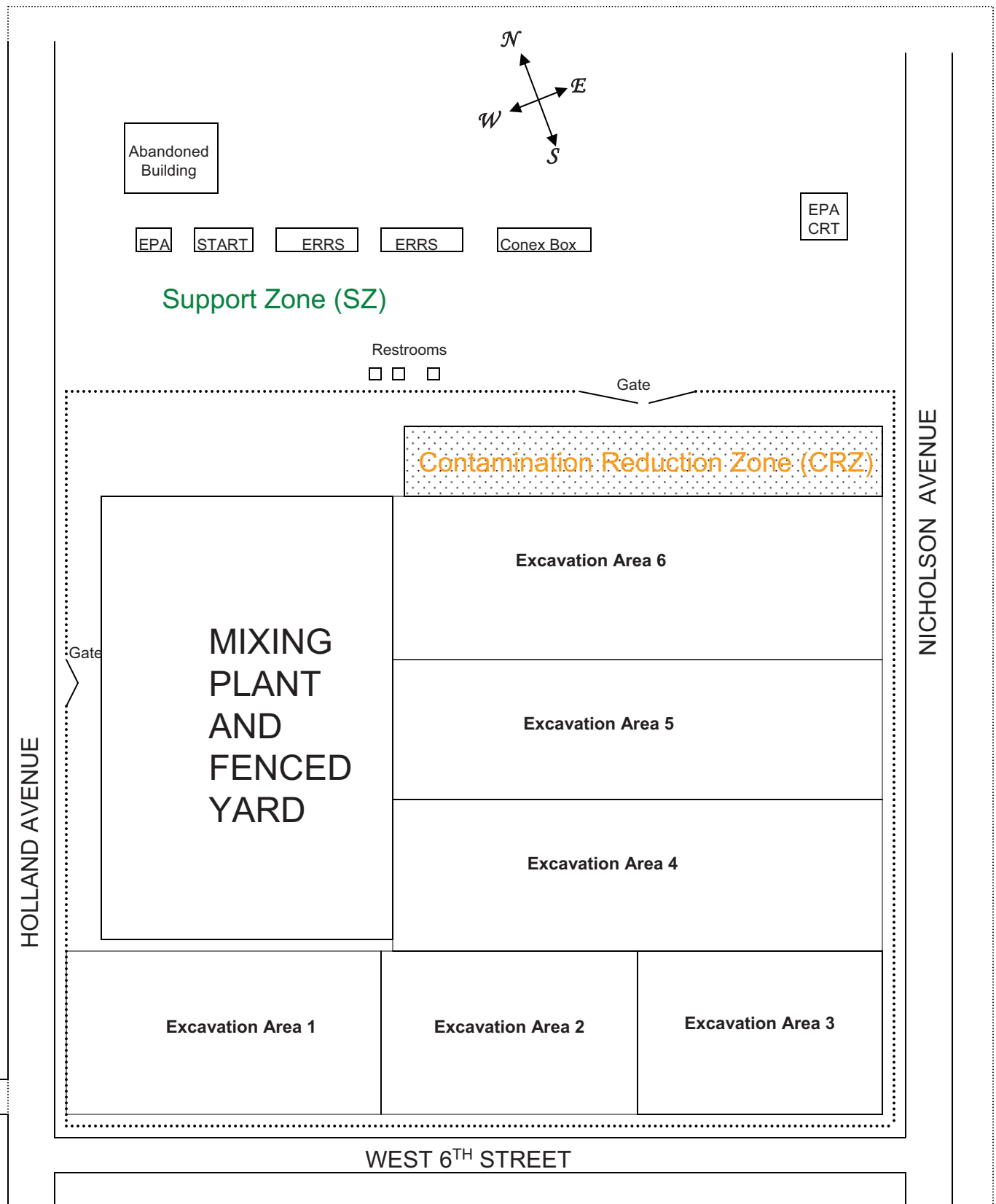
TDD No. TO-0001-06-08-01

CERCLIS No. TXD980625008

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FIGURE 5
HELENA CHEMICAL SITE: PHASE I SOIL EXCAVATION AREAS



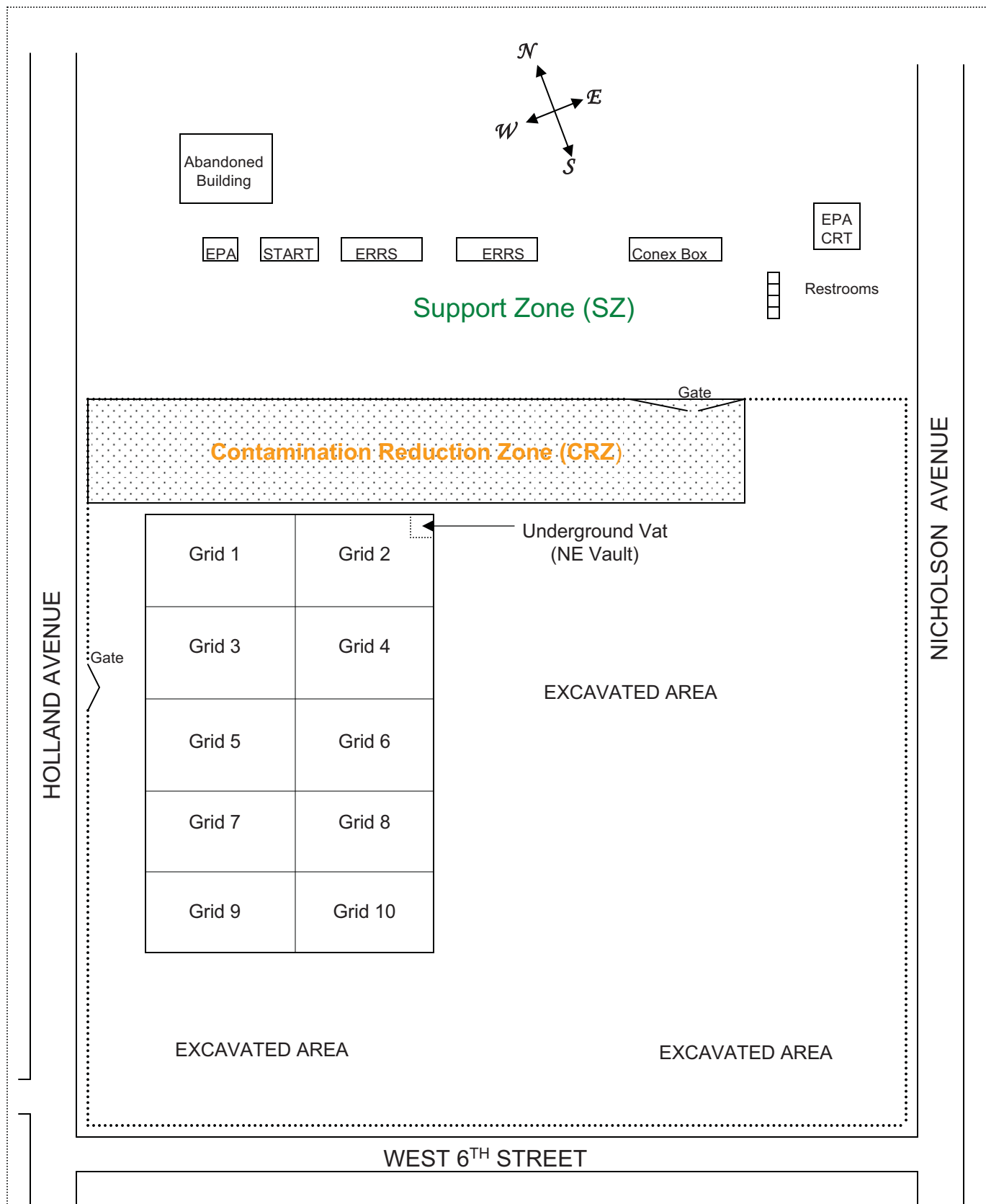
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 CERCLIS No. TXD980625008

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FIGURE 6
HELENA CHEMICAL SITE: PHASE II SOIL SAMPLING GRIDS



Legend:
 Not To Scale Fence

TDD No. T0001-06-08-01
 CERCLIS No. TXD980625008

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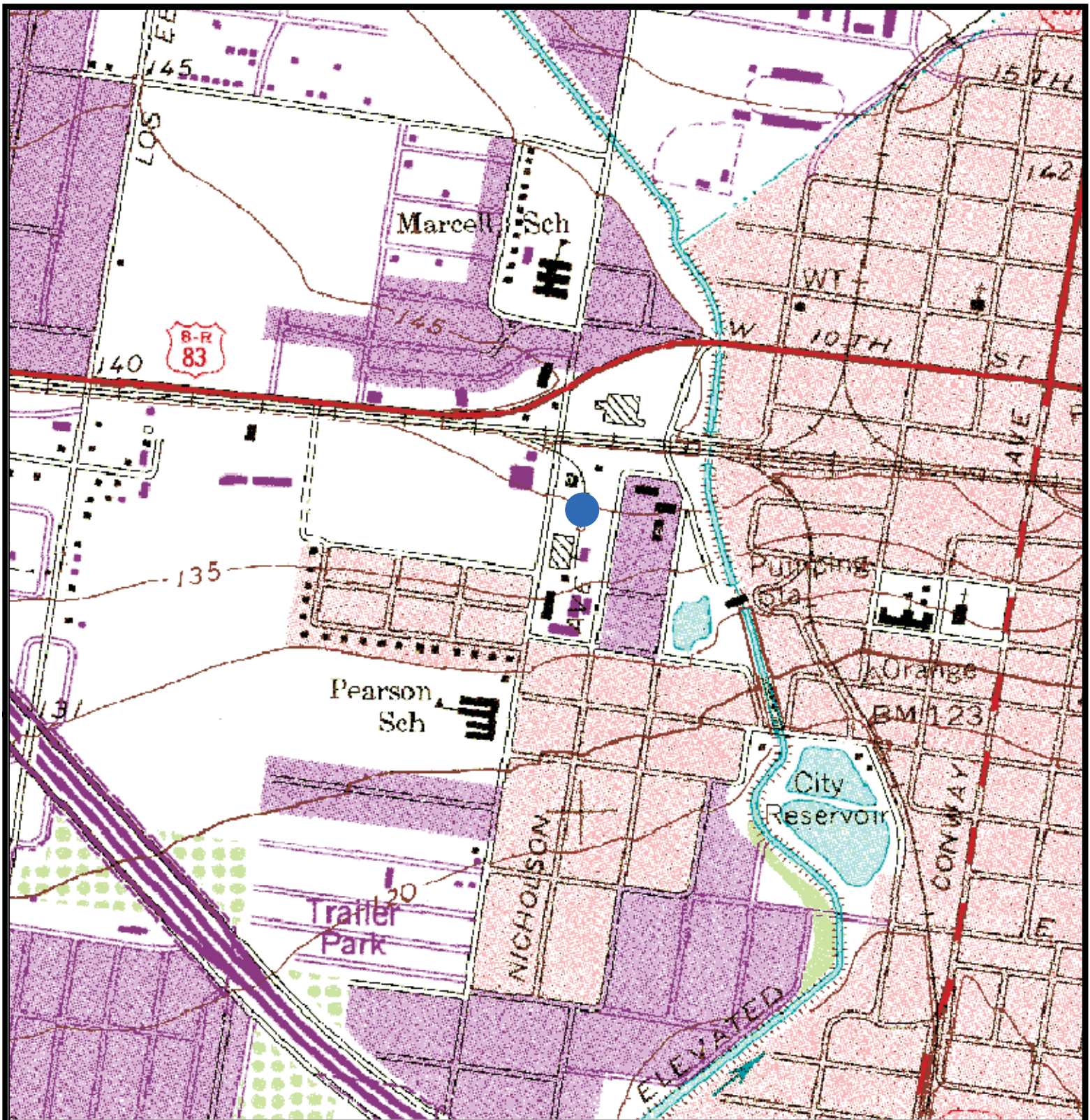


Image: USGS Quad 26098-B3, USGS 24K Collarless DRG,
downloaded from TNRIS June 6, 2008

Legend



**Helena Chemical
Site Location**

0 375 750 1,500 2,250 3,000 Feet



**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**



HELENA CHEMICAL LOCATION MAP

MISSION, HIDALGO COUNTY, TEXAS

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CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 1



Image: National Agricultural Imagery Program,
November 11, 2004 downloaded from TNIRIS



0 100 200 400 600 800 Feet

**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**



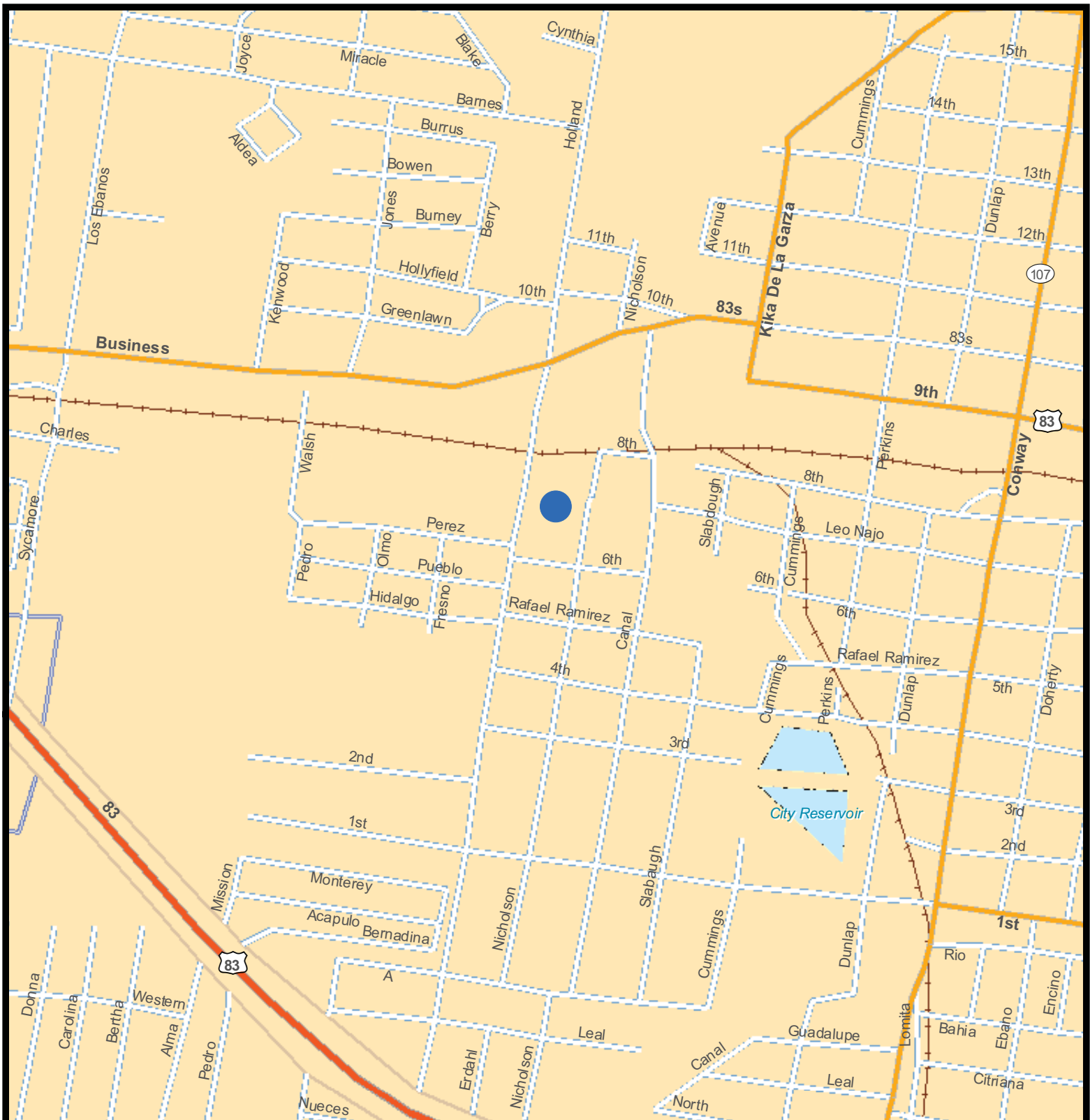
**AERIAL VIEW
OF THE HELENA
CHEMICAL SITE**

MISSION, HIDALGO COUNTY, TEXAS

**DYNAMAC
CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 2



Data: ESRI StreetMap

Legend



**Helena Chemical
Site Location**

0 365 730 1,460 2,190 2,920 Feet



**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**



**ROADS IN THE VICINITY
OF HELENA CHEMICAL**

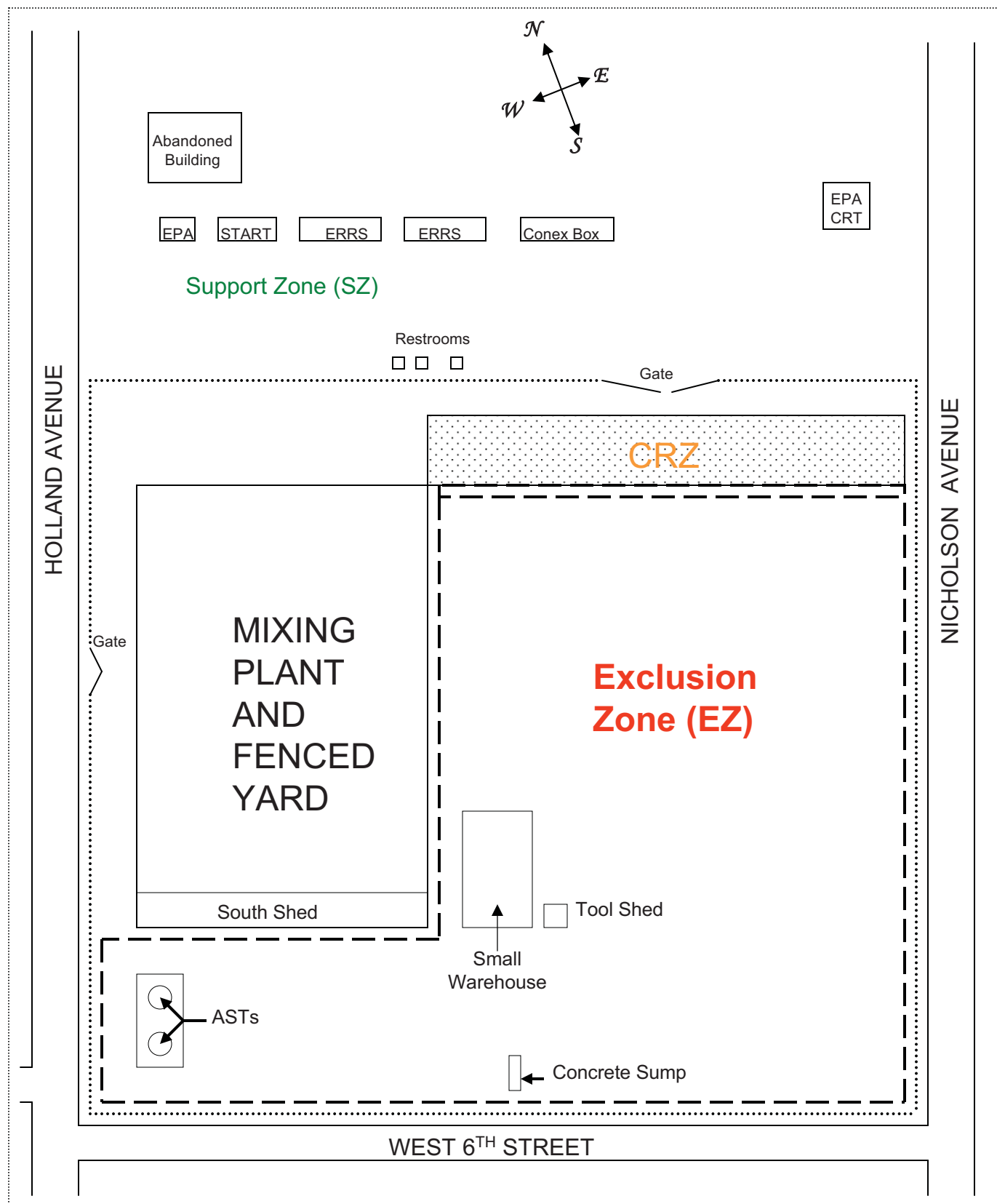
MISSION, HIDALGO COUNTY, TEXAS

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CORPORATION**

Drawn: JTT/AV9.2
Date: 6/9/08
Dwg. No.: HC-01

FIGURE 3

**FIGURE 4
HELENA CHEMICAL SITE SKETCH**



Legend:

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Fence

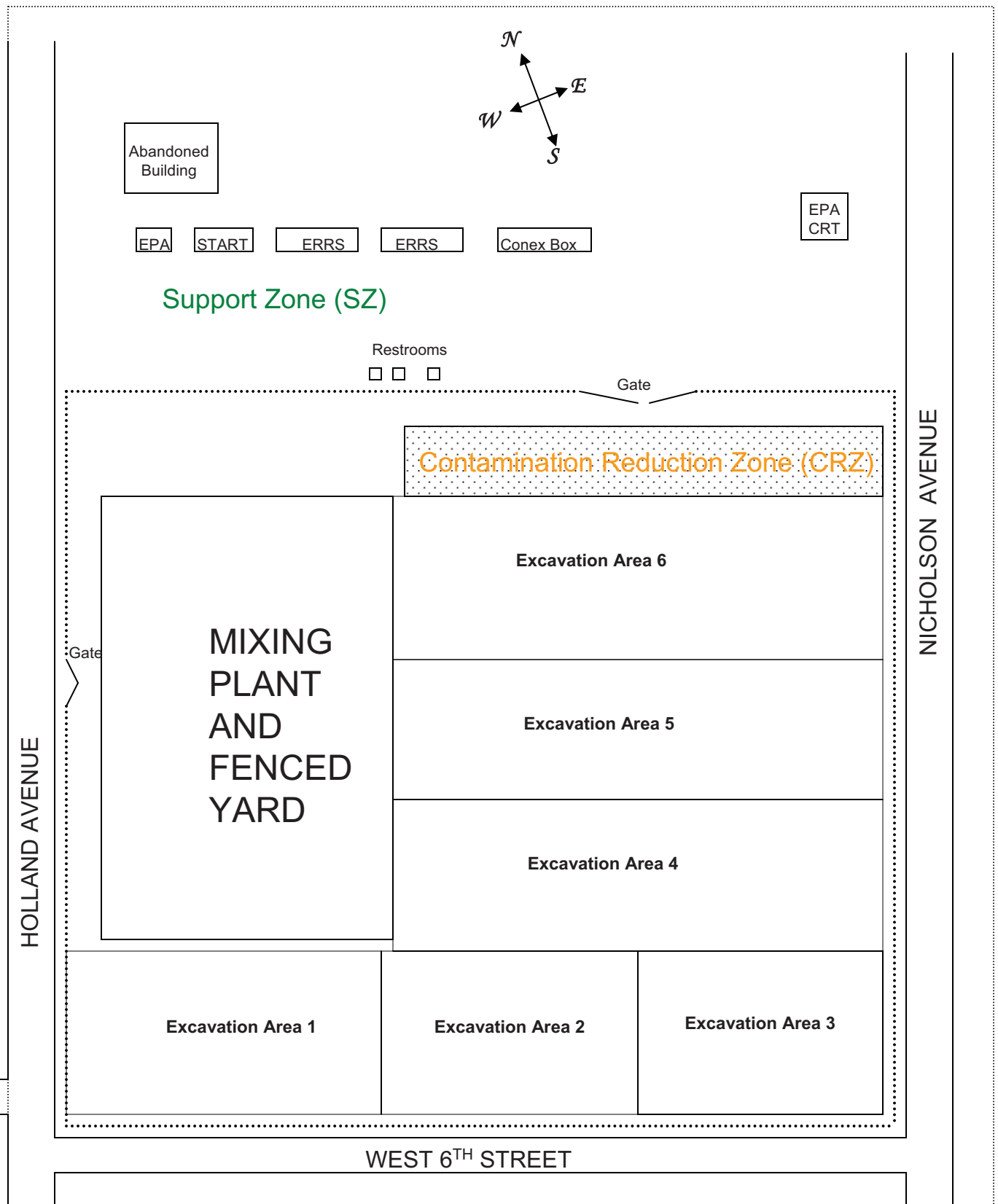
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CERCLIS No. TXD980625008

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FIGURE 5
HELENA CHEMICAL SITE: PHASE I SOIL EXCAVATION AREAS



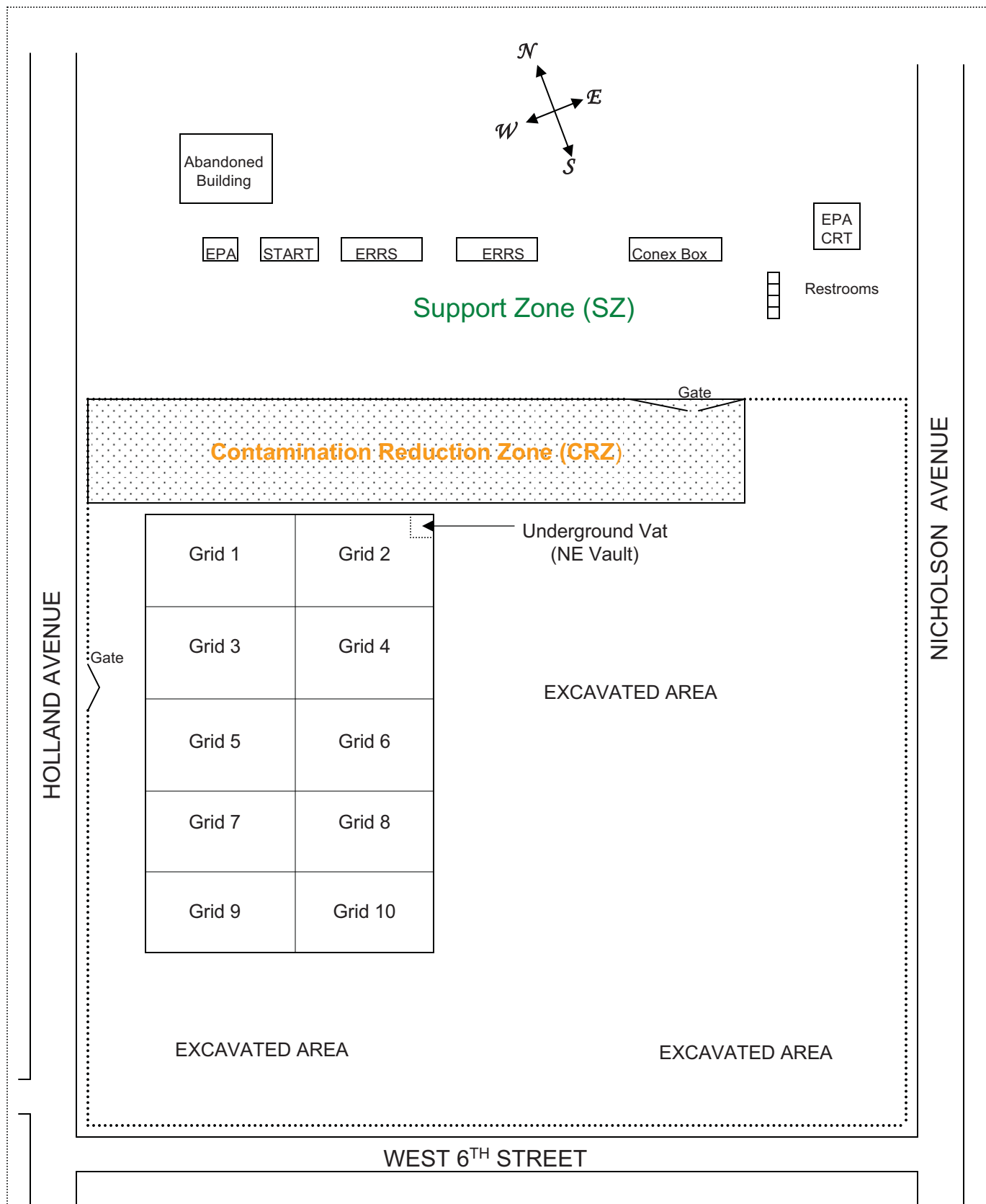
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TDD No. TO-0001-06-08-01
 CERCLIS No. TXD980625008

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FIGURE 6
HELENA CHEMICAL SITE: PHASE II SOIL SAMPLING GRIDS



Legend:
 Not To Scale Fence

TDD No. T0001-06-08-01
 CERCLIS No. TXD980625008

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